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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/529,873	07/27/2000	ANDREW BRUCE HOLMES	C1043/7023	3741

22852 7590 12/24/2002

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EXAMINER

TRUONG, DUC

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 12/24/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/529,873

Applicant(s)

HOLMES ET AL.

Examiner

Duc Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9, 11, 12, 14-24, 30 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 11-12, 14-24 and 30-31 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Applicant's arguments filed 11/13/02 have been fully considered but they are not persuasive. The Response submitted by Applicant does not overcome the rejection made by Examiner in the last Office action.

Claims 1-7,9,11-12,14-24 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anatoniadis or Wan or Hsieh.

The rejection is maintained for the reasons as stated in the last office action and for the following reasons:

Applicant's arguments are based on the claimed characteristic in that the product must be soluble.

Note that Examiner's arguments are based on the requirements for the claimed to have said characteristic.

The requirement for claim 1 is a conjugated poly(1,4-arylene vinylene) compound comprising a 1,4-phenylene unit having adjacent substituents at 2- and 3-position of the phenylene residue, as in claim 11.

The requirements for the claimed method 14 is a polymerizing a bis(halomethyl) substituted phenyl monomer in the presence of a base to form a poly(arylene vinylene) wherein the phenyl monomer has adjacent substituents at 2- and 3- position on the phenyl residue, as in claim 11.

Note that the references do disclose said requirements:

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Antoniadis discloses that the chloride polymer of DP-PPV was prepared from the polymerization of 1,4-bis(chloromethyl)-2,3-diphenyl benzene in the presence of t-BuOH) (a base) (see Synthesis of DP-PPV and Figure 1).

Wan discloses thin film of DP-PPV prepared via a chlorine route involving the polymerization of 1,4-bis(chloromethyl)2,3-diphenyl benzene (see Abstract, Table 1) using a t-BuOH.

Hsieh does disclose a halogen route using 1,4-bis(chloromethyl)-2,3-diphenyl benzene in the presence of t-BuOH to form poly(2,3-diphenyl-p-phenylene vinylene).

Since the references do disclose all the requirements for the claimed composition/method, then the claimed "soluble characteristic" must be considered inherent in the prior art.

The diagram has been fully considered but it is not persuasive since it is not commensurate in scope with the claims.

Applicant has presented no factual evidence to show why the products of the references would not in fact have the claimed property. The fact that the references do not disclose said property is not viewed as a basis to infer that said "soluble characteristic" is not possessed by the products of the references. The composition disclosed by the references is prepared from reactants and process conditions that are inclusive of the claimed reactants and conditions. In view of this similarity, it would appear to be inherent that a product having the claimed soluble characteristic could be prepared following the teachings of the references. See *In re Best*, 195 USPQ 430, 433 (CCPA 1977).

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Truong whose telephone number is 703-308-2437. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9791 for regular communications and 703-872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



DT
December 20, 2002

DUCTRUONG
PRIMARY EXAMINER